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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,065	09/15/2003	Jian Dong	038190/294894	1939

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ALSTON & BIRD LLP		
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EXAMINER	
ORTIZ RODRIGUEZ, CARLOS R	

ART UNIT	PAPER NUMBER
2125	

MAIL DATE	DELIVERY MODE
06/29/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,065	<b>Applicant(s)</b> DONG, JIAN	
	<b>Examiner</b> Carlos Ortiz-Rodriguez	<b>Art Unit</b> 2125	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Amendment to the Specifications filed 4/18/07 have been considered and entered.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. It should be noted that claims 1-5 contain language that is unclear and ambiguous, therefore, they have been rejected under 35 U.S.C. 112 (see "Claim Rejection" section below). Due to this unclear language, the examiner has cited several references that he believes contain subject matter very similar to the language present in the claims of this application. No art rejection was done because the examiner position is that in order to adequately apply said references, the claim language needs to be modified and clear. In the previous action the examiner did several rejections under 35 U.S.C. 102. After considering Applicant's arguments it was determined not to apply said art in this action. However, Applicant should be aware that the prior art of record is very similar to what seems to be the claimed subject matter and may be applied in future actions.

#### ***Claim Objections***

3. Claim 2, objected to because of the following informalities: the term "service load history" seems to be "service load history *database*". Appropriate correction is required.

4. Claim 3, objected to because of the following informalities: all parameters/variables/symbols should be defined in order to avoid confusion. For example: “wherein  $f(\omega)$  is the autospectrum of the time series model”. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no methodology which results in “generating service loads”. It should be noted that when the term “service loads” (see claims 1-5) is interpreted as realistic/original service loads to be recorded directly from sensors, there is a doubt as to enablement. The claims do not provide steps/elements for generating realistic/original service loads.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the preamble of claim 1 states: "The method of generating service loads", but the body of the claim does not provide for "generating service loads" when the term "service loads" (see claims 1-5) is interpreted as realistic/original service loads to be recorded directly from sensors.

Claims 1-5, rejected under 35 U.S.C. 112, second paragraph, as being ambiguous. Specifically, regarding claim 1, it is ambiguous whether the term "service loads" is referring to: "service load histories", "service load data", "service load signals", "service load models", "service load simulations", "reconstructed random service load histories" or "realistic/original service loads".

Claims 1-5 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: steps regarding "generating service loads".

Claims 1-5, rejected under 35 U.S.C. 112, second paragraph, as being unclear. Specifically, regarding claim 1, it is unclear how, as a consequence of "feeding the load data to a drive simulation system", the "service loads" are generated.

Claims 3-5, rejected under 35 U.S.C. 112, second paragraph, as having insufficient antecedent basis. Specifically, claim 3 recites the limitation "the change" and "the value". There is insufficient antecedent basis for this limitation in the claim.

***Citation of Pertinent Prior Art***

7. The following prior art made of record is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to low cost high fidelity service load generator for random vibration simulation tests:

a. U.S. Patent No. 6,212,486 to Huang et al., which discloses method of identifying critical elements in fatigue analysis with von mises stress bounding and filtering modal displacement history using dynamic windowing.

b. U.S. Patent No. 6,397,168 to Plecnik et al., which discloses seismic evaluation method for underground structures.

c. U.S. Patent No. 6,928,398 to Fang et al., which discloses system and method for building a time series model.

d. U.S. Patent No. 7,024,343 to El-Ratal, which discloses method for calibrating a mathematical model.

e. U.S. Patent No. 7,206,726 to Seeber et al., which discloses method of designing partially composite concrete sandwich panels and such panels.

The following publications are cited to further show the state of the art with respect to low cost high fidelity service load generator for random vibration simulation tests:

f. U.S. Pub. No. 2002/0072884 to El Retal, which discloses method for calibrating a mathematical model.

g. Pappas et al., "Impact of theater airlifter characteristics on future theater airlift system productivity", Proceedings of the 1992 Winter Simulation Conference, 1992.

h. Crane, Francis, "Flight simulator visual-display delay compensation", 1981 Winter Simulation Conference Proceedings, IEEE, 1981.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Ortiz-Rodriguez (**new examiner of record**) whose telephone number is **571-272-3766**.

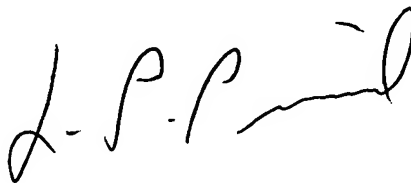
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2125

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Carlos Ortiz-Rodriguez  
Patent Examiner  
Art Unit 2125

June 25, 2007

A handwritten signature in black ink, appearing to read 'L. Picard', with a stylized flourish at the end.

**LEO PICARD**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**